IN THE CLAIMS

1. (Original) A method for forming a film on a substrate comprising:

activating a gas precursor to deposit a material on the substrate by irradiating the gas precursor with electromagnetic energy at a frequency tuned to an absorption frequency of the gas precursor.

2. (Original) The method of claim 1, wherein the method further includes adjusting a source for the electromagnetic energy to provide the electromagnetic energy at a select frequency tuned to a specific absorption frequency of the gas precursor.

3. (Original) The method of claim 2, wherein adjusting a source for the electromagnetic energy includes switching laser light from an output of one laser in a laser array to an output of another laser in the laser array.

4. (Original) The method of claim 2, wherein adjusting a source for the electromagnetic energy includes switching laser light from an output of one diode laser in a diode laser array to an output of another diode laser in the diode laser array.

5. (Original) The method of claim 2, wherein adjusting a source for the electromagnetic energy includes tuning a tunable laser to the select frequency.

6. (Original) The method of claim 1, wherein the method further includes controlling a location at which the electromagnetic energy interacts with the gas precursor.

7. (Original) The method of claim 6, wherein controlling a location at which the electromagnetic energy interacts with the gas precursor includes rastering the electromagnetic energy across a portion of a surface of the substrate.

8. (Original) The method of claim 1, wherein activating a gas precursor includes breaking specific bonds in the gas precursor.

9. (Original) The method of claim 1, wherein activating a gas precursor includes decomposing the gas precursor into two of more chemical vapors.

10. (Original) The method of claim 1, wherein the method further includes controlling environmental parameters and a location at which the electromagnetic energy irradiates the gas precursor such that activating the gas precursor occurs at a distance from the substrate that is within a mean free path of the activated gas precursor.

11. (Original) The method of claim 1, wherein the method is performed as a part of a chemical vapor deposition process.

12. (Original) The method of claim 1, wherein the method is performed as a part of an atomic layer deposition process.

13. (Original) A method for forming a film on a substrate comprising:
selecting an absorption frequency of a molecule of a gas reactant;
setting a select frequency for a laser source correlated to the absorption frequency;
illuminating the gas reactant using the laser source to deposit a material on the substrate.

14. (Original) The method of claim 13, wherein setting a select frequency for a laser source includes selecting a laser in a laser array to provide the laser source having the select frequency.

15. (Original) The method of claim 13, wherein setting a select frequency for a laser source includes selecting a diode laser in a diode laser array to provide the laser source having the select frequency.

16. (Original) The method of claim 13, wherein setting a select frequency for a laser source includes tuning a tunable laser to the select frequency.

17. (Original) The method of claim 13, wherein the method further includes controlling a location at which radiation from the laser source illuminates the gas reactant.

18. (Original) The method of claim 17, wherein controlling a location at which radiation from the laser source illuminates the gas reactant includes rastering the laser beam across a portion of a surface of the substrate.

19. (Original) The method of claim 13, wherein the method further includes regulating environmental parameters and a location at which the laser source illuminates the gas reactant to activate the gas reactant at a distance from the substrate that is within a mean free path of the activated gas reactant.

20. (Original) A method for forming a film on a substrate comprising:

measuring absorption frequencies of one or more molecules of a gas flow;

selecting an absorption frequency at which to activate a gas precursor in the gas flow;

triggering a laser of a laser array, the triggered laser having a frequency corresponding to the selected absorption frequency; and

exposing the gas flow to a laser beam from the triggered laser to deposit a material on the substrate.

21. (Original) The method of claim 20, wherein triggering a laser of a laser array includes activating a diode laser in a diode laser array.

22. (Original) The method of claim 20, wherein triggering a laser of a laser array includes tuning a tunable laser to the select frequency.

23. (Original) The method of claim 20, wherein the method further includes controlling a location at which the gas flow is exposed to the laser beam.

24. (Original) The method of claim 23, wherein controlling a location at which the gas precursor is exposed to the laser beam includes rastering the laser beam across a portion of a surface of the substrate.

25. (Original) The method of claim 20, wherein the method further includes managing environmental parameters and a location at which the laser beam from the triggered laser illuminates the gas flow to activate the gas precursor at a distance from the substrate that is within a mean free path of the activated gas precursor.

26. (Withdrawn) A method for forming an electronic device comprising:

providing a substrate;

forming circuits on the substrate, wherein forming the circuits includes depositing a material by irradiating a gas precursor with electromagnetic energy at a frequency tuned to an absorption frequency of the gas precursor to activate the gas precursor.

27. (Withdrawn) The method of claim 26, wherein the method further includes adjusting a source for the electromagnetic energy to provide the electromagnetic energy at a select frequency tuned to a specific absorption frequency of the gas precursor.

28. (Withdrawn) The method of claim 27, wherein adjusting a source for the electromagnetic energy includes switching laser light from an output of one laser in a laser array to an output of another laser in the laser array.

29. (Withdrawn) The method of claim 27, wherein adjusting a source for the electromagnetic energy includes switching laser light from an output of one diode laser in a diode laser array to an output of another diode laser in the diode laser array.

30. (Withdrawn) The method of claim 27, wherein adjusting a source for the electromagnetic energy includes tuning a tunable laser to the select frequency.

31. (Withdrawn) The method of claim 26, wherein the method further includes controlling a location at which the electromagnetic energy interacts with the gas precursor.

32. (Withdrawn) The method of claim 31, wherein controlling a location at which the electromagnetic energy interacts with the gas precursor includes rastering the electromagnetic energy across a portion of a surface of the substrate.

33. (Withdrawn) The method of claim 26, wherein activating a gas precursor includes breaking specific bonds in the gas precursor.

34. (Withdrawn) The method of claim 26, wherein activating a gas precursor includes decomposing the gas precursor into two of more chemical vapors.

35. (Withdrawn) The method of claim 26, wherein the method further includes managing environmental parameters and a location at which the electromagnetic energy irradiates the gas precursor such that activating the gas precursor occurs at a distance from the substrate that is within a mean free path of the activated gas precursor.

36. (Withdrawn) The method of claim 26, wherein the method is performed as a part of a chemical vapor deposition process.

37. (Withdrawn) The method of claim 26, wherein the method is performed as a part of an atomic layer deposition process.

38. (Withdrawn) The method of claim 26, wherein the method further includes forming the electronic device as an integrated circuit.

39. (Withdrawn) The method of claim 26, wherein the method further includes forming the electronic device as a memory device.

40. (Withdrawn) A method for forming an electronic system comprising:

providing a processor;

coupling a processor to a memory, wherein at least one of the processor or the memory are formed by a method including depositing a material by illuminating a gas reactant with a laser beam having a frequency targeted to an absorption frequency of the gas reactant to activate the gas precursor.

41. (Withdrawn) The method of claim 40, wherein the method further includes adjusting the laser beam to a select frequency tuned to a target absorption frequency of the gas precursor.

42. (Withdrawn) The method of claim 41, wherein adjusting the laser beam to a select frequency includes switching the laser beam from an output of one laser in a laser array to an output of another laser in the laser array.

43. (Withdrawn) The method of claim 41, wherein adjusting the laser beam to a select frequency includes switching the laser beam from an output of one diode laser in a diode laser array to an output of another diode laser in the diode laser array.

44. (Withdrawn) The method of claim 41, wherein adjusting the laser beam to a select frequency includes tuning a tunable laser to the select frequency.

45. (Withdrawn) The method of claim 40, wherein the method further includes controlling a location at which the laser beam interacts with the gas precursor.

46. (Withdrawn) The method of claim 45, wherein controlling a location at which the laser beam interacts with the gas reactant includes rastering the laser beam across a portion of a surface of the substrate.

47. (Withdrawn) The method of claim 40, wherein activating a gas reactant includes breaking specific bonds in the gas precursor.

48. (Withdrawn) The method of claim 40, wherein activating a gas reactant includes decomposing the gas reactant into two of more chemical vapors.

49. (Withdrawn) The method of claim 40, wherein the method further includes controlling environmental parameters and a location at which the laser beam illuminates the gas reactant such that activating the gas reactant occurs at a distance from the substrate that is within a mean free path of the activated gas precursor.

50. (Withdrawn) The method of claim 40, wherein the method is performed as a part of a chemical vapor deposition process.

51. (Withdrawn) The method of claim 40, wherein the method is performed as a part of an atomic layer deposition process.

52.-78. (Cancelled)